

AMENDMENTS TO THE DRAWINGS:

The attached sheet of drawings includes changes to Fig. 3. This sheet, which includes Figs. 2-3, replaces the original sheet including Figs. 2-3. In Fig. 3, the legend --Prior Art-- has been added.

Attachment: Replacement Sheet

REMARKS

The office action of June 23, 2005, has been carefully considered.

It is noted that the drawings are objected to because Figure 3 needs the legend --Prior Art--.

Claims 7 and 8 are rejected under 35 U.S.C. 112, second paragraph.

Claims 7 and 8 are further rejected under 35 U.S.C. 101.

Claims 1-8 are rejected under 35 U.S.C. 103(a) over the patent to Oxenrider et al. in view of Frey.

In connection with the Examiner's objection to the drawings, applicant has attached hereto an amended sheet of drawings in which Fig. 3 has been amended to include the legend --Prior Art--.

In view of these considerations it is respectfully submitted that the objection to the drawings is overcome and should be withdrawn.

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In view of the Examiner's rejections of the claims, applicant has canceled claims 7 and 8, and added new claims 9 and 10.

It is respectfully submitted that with the cancellation of claims 7 and 8 and the submission of new claims 9 and 10, the rejections of claims 7 and 8 under 35 U.S.C. 112, second paragraph and 35 U.S.C. 101 are overcome and should be withdrawn.

It is respectfully submitted that the claims presently on file differ essentially and in an unobvious, highly advantageous manner from the constructions disclosed in the references.

Turning now to the references and particularly to the patent to Oxenrider et al., it can be seen that this patent discloses synthetic fibers having improved soil and stain repellency. Oxenrider et al. do not disclose a solution spinning process, instead they disclose an extrusion process for dry production of fibers. For this purpose, a polymer powder, for example polyacrylonitril, is mixed with an ambivalent polymer. This ambivalent polymer contains fluorocarbon groups and remainder groups are nitril groups. The ambivalent polymer can be mixed dry or in solution. The dry mixture is extruded. A disadvantage of a

melt extrusion is that the fluorocarbon components, due to their division in the melt, are also divided or separated across the cross section of the fiber and only the part of the fluorocarbon that is on the surface of the fiber acts as a repellent. Although this portion on the outer surface of the fibers provides repellent properties, the repellency is not as extensive as the presently claimed invention. Column 9, lines 53-62 of Oxenrider et al. state that in the fiber the ambivalent polymers are finely dispersed and are concentrated on the surface. The concentration on the outer surface is to occur by tempering after the melt extrusion. Since a dry mixture is extruded it is not clear to applicant how the migration of the polymer is to take place. A concentration on the outer surface would surely not take place with melt extrusion, but instead the ambivalent polymers are separated as in the output mass. In this connection one cannot speak of a fine dispersion since there is no dispersion agent. The ambivalent polymers also do not wander out of the center of the fiber to the outer surface. In the presently claimed invention, on the other hand, a solution spinning process is claimed in which not only spinnable polymer component and an ambivalent polymer compound are present, but also a third component is present, namely a solution agent, in which both polymers are finely dispersed. In this way, by spinning out the repelling group the polymer mixture moves in the direction of

the outer surface so that a concentration of these groups is achieved on the outer surface. This migration is supported by the escaping of the solution agent out of the fiber during hardening. In this way a fiber is obtained by solution spinning that has much higher repellency.

The Frey et al. reference teaches spinning an olyacrylonitrile polymer. The Examiner combined Frey et al. with Oxenrider et al. in determining that claims 1-8 would be unpatentable over such a combination. Applicant respectfully submits that neither of these references, nor their combination, teach a solution spinning process for the production of a textile fiber with permanent repellent action as recited in the claims presently on file. There is no teaching in either of the references or their combination for replacing a melt (dry) extrusion with a solution process to provide fibers with improved repellency, since neither of the references discusses the migration process that takes place within the fiber during production of the fiber. Thus, it is respectfully submitted that the combination of references does not teach or suggest the presently claimed invention.

In view of these considerations it is respectfully submitted

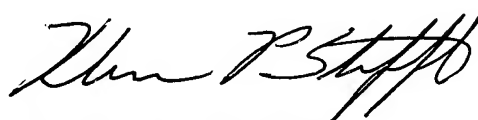
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that the rejection of claims 1-8 under 35 U.S.C. 103(a) over a combination of the above-discussed references is overcome and should be withdrawn.

Reconsideration and allowance of the present application are respectfully requested.

Any additional fees or charges required at this time in connection with this application may be charged to Patent and Trademark Office Deposit Account No. 11-1835.

Respectfully submitted,

By 

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Dated: October 24, 2005

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, PO Box 1450 Alexandria, VA 22313-1450, on October 24, 2005.

By: 
Klaus P. Stoffel

Date: October 24, 2005